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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,063	11/07/2001	Chung-Hee Chang	50103-404	4803

7590 06/26/2003
MCDERMOTT, WILL & EMERY
600 13th Street, N. W.
Washington, DC 20005-3096

EXAMINER

FALASCO, LOUIS V

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 06/26/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-6

Office Action Summary

Application No.

09/986,063

Applicant(s)

CHANG ET AL.

Examiner

Louis Falasco

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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PAPERS RECEIVED

Applicants' Request for Reconsideration received May 28, 2003 is acknowledged as paper #5

CLAIMS

The c claims are 1 to 20.

Claims under consideration remain 1 - 13 and 19 - 20.

DETAILED ACTION ON THE MERITS

Statutory Basis

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Objections

The examiner has withdrawn all objections made in the previous Office Action.

Rejections

1. Claims 1 to 13, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the *admitted state of the Prior Art* taken with **Honda et al** (US 5851643) in view of **Futamoto et al** (US 6403203).

Admittedly perpendicular magnetic recording media has been a known class of recording media, and known magnetic recording media include non-magnetic layers in a stack of hard and soft magnetic layers (evident from the Prior Art drawing - Fig. 1, and explanations page - 2 ln 3 to page 4 ln 11). Applicants' alleged advance is in the materials and element obtaining a coercivity of over 5,000 Oe.

However, as pointed out in the previous Office action the materials, appearing in dependent claims, obtaining the coercivity are those known in the art. This was confirmed in the teachings of **Honda et al** and **Futamoto et al** in the previous Office Action. It was also shown how materials appearing in dependent claims were known in detail in the art for magnetic recording media.

The examiner's position remains that it would have been *prima facie* obvious to one of ordinary skill to select materials and form the element of the claims, one would have been motivated to adopt **Honda et al** and **Futamoto et al** with the expectation of raising recording density of perpendicular material and decreasing feed back noise - as shown in col. 1 lns 30-43 of **Honda et al** and col. 1 lns 45-56 of **Futamoto et al**.

REPLY TO APPLICANTS' REQUEST FOR RECONSIDERATION

The Request for Reconsideration received May 28, 2003 has been carefully considered but is ineffective in overcoming the rejections.

In considering applicants remarks in the Request for Reconsideration: it was pointed out by applicants that while there is an admitted state of the prior art subsequent pages of the specification i.e., page 4 ln 12 through page 6 ln 9 of the instant specification, enumerate the advantages of the instant invention as distinguished from the admitted prior art and teachings of **Honda et al** and **Futamoto et al**. These advantages are included in a factual showing of high coercivity, over 5,000 Oe, and a M-H loop of graph evidence of superior results obtained of media comprised of a configuration included by the instant claims.

In the Request for Reconsideration it's also been pointed out, that the high coercivity is claimed. This is contrasted to what was obtained in the prior art - e.g., **Honda et al** shows coercivity in the order of half that of the instant claims (as in col. 4 lns 55-58 of **Honda et al**). While the materials may be found in the teachings of **Honda et al** and **Futamoto et al** they require picking and choosing to the point they would not fairly be considered obvious to use the specific combination of elements together that bring about the results shown in Fig. 4 - cf Fig. 2A 2B.

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In reply the examiner points out many of the materials are shown in combination e.g., col. 2 ln 24 of **Honda et al** teaches the CoCr alloys and the Ru and CoCr Pd or Pt alloys of the dependent claims are clearly taught at col. 8 ln 65 – col. 9 ln 14 and other places in of **Honda et al**. The NiP of the dependent claims is the only suggestions for the substrate under layer in **Futamoto et al** and CoCr alloys and Ru Are clearly taught (col. 21 lns 40-56 for instance).

Applicants' 'showing' in the specification of magnetic recording media resulting in 5000 + Oe coercivity has been shown to be a result of the selection material combinations and layer thickness that does not appear in any single claim under consideration.

No single claim contains the thickness for the soft and hard magnetic, and Ru nonmagnetic layers with the materials, which applicants appear to concede, are not unknown in the magnetic media art. They're being no claim commensurate in scope to the showing applicants have presented; the claims remain rejected for reasons of record

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

STATUTORY PERIOD FOR REPLY TO THIS FINAL ACTION

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

CONCLUSION

- No claim has been allowed.
- This is a Final Action


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INQUIRES

Any inquiry concerning this communication from the examiner should be directed to examiner Louis Falasco, Ph.D. whose telephone number is 703.305-6974. The examiner can normally be reached M-F 9:30 AM - 6:00 PM.

- If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Paul Thibodeau may be reached at 703.308-2367.
- The Fax phone numbers for the organization where this application or proceeding is assigned are: 703.872-9310 for regular communications and 703.872-9311 for After Final communications.
- An inquiry of a general nature or relating to status of this application or proceeding should be directed to the TC 1700 receptionist whose telephone number is 703.308-0651.

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STEVAN A. RESAN
PRIMARY EXAMINER